CALIFORNIA'S HEALTH

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STATE DEPARTMENT OF PUBLIC HEALTH
ESTABLISHED APRIL 15, 1870

PUBLISHED SEMI-MONTHLY

ENTERED AS SECOND-CLASS MATTER FEB. 21, 1922, AT THE POST OFFICE AT SACRAMENTO, CALIFORNIA, UNDER THE ACT OF AUG. 24, 1912. ACCEPTANCE FOR MAILING AT THE SPECIAL RATE OF POSTAGE PROVIDED FOR IN SECTION 1103, ACT OF OCT. 3, 1917

SACRAMENTO (14), 631 J STREET, 2-4711 — SAN FRANCISCO (2), 668 PHELAN BLDG., 760 MARKET ST., UN 8700 — LOS ANGELES (12), STATE OFFICE BLDG., 217 W. FIRST ST., MA 1271

VOLUME 1, NUMBER 8 — OCTOBER 30, 1943 — GUY P. JONES, Editor

REGULATIONS RELATING TO COUNTY AND MUNICIPAL LABORATORIES

(Made Pursuant to Section 208, Chapter 2, Article I, Division I and Sections 1000-1002, Chapter 7, Part 2, Division I of Health and Safety Code)

Adopted by the State Board of Public Health August 28, 1943

Section 1. Official Public Health Laboratory Service Required

Each local health department shall have available the services of an official public health laboratory. The laboratory of the State Department of Public Health is hereby designated as the official laboratory for all local health department jurisdictions not covered by local laboratory service.

Section 2. Certificates of Approval Required

A certificate of approval issued by the State Department of Public Health, after inspection and recommendation by the Chief of the Division of Laboratories, shall be required to be in the possession of and be on display by all official public health laboratories, and no such laboratory shall continue to operate following receipt of notice of cancellation of any existing certificate, or of refusal of the Department to issue a certificate.

Section 3. Reports Required

The following reports shall be transmitted to the State Division of Laboratories by all laboratories approved under Section 2:

(a) A monthly statistical report covering the activities for the current month shall be forwarded within 15 days after the end of the month.

(b) A notification shall promptly be given of any change in:

(1) The directorship of the laboratory.

(2) Any proposed expansion in public health work.

(3) Any change in the location of the laboratory.

(4) Any change in the technic used in serological tests for syphilis.

(c) A report shall be made semiannually on the second of January and the first of July of the technical and apprenticeship personnel in the laboratory.

(d) Such additional reports shall be made as may be required from time to time by the State Department of Public Health.

Section 4. Minimum Requirements Specified

Any laboratory approved under Section 2 shall meet the following minimum requirements:

(a) Maintain physical equipment that is adequate to carry on dependable public health laboratory work including equipment necessary for all chemical and bacteriological examinations which are or may be required for the detection of communicable disease and the examination of waters.

(b) Employ procedures and technics approved by the State Department of Public Health.

(c) Establish and maintain adequate record systems and files of laboratory work done.

(d) Retain for a minimum period of 30 days all microscopic slides both positive and negative upon which reports have been rendered in the diagnosis of any communicable disease.

(e) Employ procedures for reporting results of examinations that are approved by the State Department of Public Health.

(f) In addition to the above, maintain and conduct the laboratory in a manner approved by the State Department of Public Health.

(g) Employ certified personnel as hereinafter provided.

Section 5. Certain Cultures and Specimens to be Sent to the State Laboratory

(a) All laboratories making examinations for the identification of typhoid carriers shall in all positive cases, forward to the State Division of Laboratories a culture of the organism, the isolation of which established the diagnosis.

(b) Whenever a laboratory receives a specimen for the laboratory diagnosis of suspected human plague such laboratory shall communicate immediately by telephone or telegraph with the State Laboratory for instructions.

Section 6. Technical Personnel to be Certified

(a) No person may serve as a technician in any laboratory certified under Section 2 who is not in possession of a Public Health Laboratory Technician's Certificate issued by the State Department of Public Health certifying that the holder has passed an examination in bacteriology, serology and parasitology for service in such laboratories; provided, however, that technicians who were employed in a county, city, or city and county, laboratory on the effective date of the act under authority of which this regulation is promulgated (1939 amendment), and who held on that date a certificate of proficiency in bacteriology only, issued by the State Department of Public Health, shall be permitted to continue in employment in such laboratories provided they do not engage in work not covered by the certificate in bacteriology, and provided further that the department may issue temporary certificates to applicants who meet the requirements for admission to the next scheduled examination when this is deemed to be reasonably necessary for the provision of public health laboratory service.

(b) Examinations, either written or oral, or both, for the certificate of Public Health Laboratory Technician shall be held from time to time in such geographic centers of the State as will best suit the convenience of the majority of the applicants or as may be designated by the Chief of the Division of Laboratories. Such examinations shall be under the supervision of the Chief of the Division of Laboratories.

(c) The minimum requirements for admission to the examinations for a Certificate as Public Health Laboratory Technician shall be as follows: Graduation from a university approved by the State Department of Public Health with a degree of A.B. or B.S. or equivalent subject or subjects, as may be determined by the department, and six months' experience as an apprentice, working an average minimum of 35 hours per week, in a public health laboratory; provided, however, that until January 1, 1946, the following may be accepted in lieu of the above requirements: Graduation from high school and three years' experience in a laboratory operated by a municipal, county or state government in connection with public health work, such experience having been obtained within six years immediately preceding the date of application for taking the examination.

(d) Certificates of proficiency in individual subjects issued by the State Division of Laboratories or certificates issued under the provisions of Sections 1200-1305 of the Business and Professions Code are not acceptable in lieu of the regular examination for Public Health Laboratory Technician's Certificate.

(e) Certificates are subject to revocation for cause deemed sufficient by the Department after formal hearing.

Section 7. Apprenticeship Training

(a) Laboratories certified under Section 2 may accept personnel for apprenticeship training as public health laboratory technicians but such apprentices shall not be entrusted with any examinations excepting under the immediate supervision of certified Public Health Laboratory Technicians.

(b) The number of apprentices in a laboratory shall not exceed the following ratio to certified public health laboratory technicians:

(1) A laboratory having not more than one fully certified public health laboratory technician may have one apprentice only.

(2) A laboratory having two or more fully certified public health laboratory technicians may have two apprentices.

(3) A laboratory having three or more fully certified public health laboratory technicians may upon application to the State department be permitted to have more than two apprentices provided the proposed training program is specifically approved by the State department.

(c) The appointment or separation of an apprentice shall be reported to the State Division of Laboratories, giving the name of such apprentice and the date of appointment or separation.

Section 8. Certain Specimens to be Sent to Approved Laboratories

Whenever specimens are taken for laboratory diagnosis of rabies or botulism, or for release from isolation of cases of diphtheria, typhoid fever, paratyphoid, or bacillary dysentery they shall be sent by the physician to a Public Health Laboratory approved for such work by the State Department of Public Health in accordance with Section 2 of these regulations, and the technician performing the tests shall possess a Public Health Laboratory Technician's Certificate, except that physicians may send specimens to a laboratory that is

not approved, provided they divide the material and at the same time send a sample to a laboratory that is approved as hereinabove specified.

Section 9. Inspections to be Made

(a) Laboratories approved under Section 2 shall be inspected from time to time by the Chief of the Division of Laboratories, or his designated representative, in order to see that they are being maintained and conducted in conformity with these regulations. Such inspections shall include the sending to local laboratories by the State Laboratory of such check specimens as the State Department may deem advisable in order to evaluate the accuracy and dependability of the local laboratory service.

Section 10. Health Departments May Contract with Private Laboratories

A health officer of a municipality or county possessing no laboratory, but who desires local official laboratory service, may designate a local or private laboratory as the official public health laboratory of his territory, but any such designation shall be subject to the same requirements as other official public health laboratories as heretofore provided under Sections 1 to 9, inclusive, of these regulations.

Section 11. Certificates of Approval to Clinical Laboratories to be Discontinued

The issuance by the State department of certificates of approval to clinical or other laboratories that do not come within the provisions of these regulations shall be discontinued.

WAR MENACE OF TROPICAL DISEASES*

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Tropical medicine comes to town in this war through return of military personnel carrying infection and by incidental or accidental introduction of infected disease carriers, such as insects, rodents, other animals and mechanical conveyance. After the war, introduction will be by military personnel, evacuees, travelers, students, officials, and by the enormous increase of air transportation.

Now present in the United States we have a formidable list of diseases. Disorganization of society and medical public health facilities by war make these more dangerous. Of greatest military importance the world over, and already widely present in the United States are malaria and bacillary dysentery.

1. *Malaria* is probably greatest of all diseases in number affected and damage done. Its total mass is probably as great today as it ever was. Its control requires control of the mosquito carriers and treatment of patients. Both are difficult and not very satisfactory. Quinine and atebrin are our only present fairly effective drugs with promise of new drug types among sulfonamides and elsewhere.

2. *Bacillary dysentery* is due to dysentery bacilli carried in contaminated food and especially water. Hygiene and safe water and food are difficult among crowded populations, in poor sanitation and under combat military conditions. Effective drug treatment is available but the disease is epidemic and may incapacitate large numbers before treatment can be effective.

3. *Amebiasis* and amebic dysentery are with us always. This ameba is always dangerous, can be prevented by not swallowing contaminated food and water, and its prevalence depends more on poor hygiene and sanitation than on latitude. But poor hygiene and sanitation are more common in warm climates and under military combat conditions.

4. *Plague* is present widely in western United States rodents—may have been there for centuries. It is not a primary danger and is controllable easily by present methods of rat and flea control, and isolation of patients.

5. *Typhus* in some of its many forms is a cool weather camp-follower of poverty, crowding and malnutrition. It is always present in the United States, and is always a danger. Spread in epidemic form by lice, in endemic form by rat fleas and as spotted fever by certain ticks, it is better prevented than dealt with later. It is one of the greatest potential dangers of armies.

6. The deficiency diseases in all degrees of severity. These are especially Beriberi, pellagra, sprue, and scurvy.

7. Also to be noted are coccidioides and other fungous infections, infectious jaundice, rat bite fever, relapsing fever, leprosy, and tularemia.

In the group of diseases not present or rare in the United States may be noted the following:

1. Cholera, not present and not likely to be a menace except with breakdown of public health controls. Was the scourge of the 49'ers and the Mississippi Valley.

2. Typhus in epidemic form is always dangerous and requires close watch.

3. Yellow fever came from Africa with slaves to New World. Many problems not yet solved. Carried by many mosquitoes of which the chief is Aedes aegypti, which does not occur in California. Is a potential and ever present military danger in South and Central America and Africa, not so far found in Asia. Would quickly change political balances in Asia. Is always a smouldering volcano. Vaccination is highly effective. Still present in South America.

* An abstract of an address given before the Department of Health Officers League of California Cities, Sacramento, October 19, 1943.

4. Dengue fever often invades southern United States. Mosquito borne, invaliding, hard to control epidemics.

5. Leishamia (Kala azar) infections of Asia, the Mediterranean and South America could easily invade the United States.

6. Trypanosomes cause true sleeping sickness of Africa which is spread only by Tsetse flies which are not found in western hemispheres. Related form in Brazil is spread by Triatoma or Kissing bug which is also common in California.

7. Filariasis is spread by various mosquitoes and is common in all hot climates. Could easily invade the United States if enough patients present with the parasites in their blood to infect the proper mosquitoes. This has happened in South Carolina. Onchocerca is a slave-introduced filaria which causes blindness in lower Mexico and Central America.

8. Various worms and flukes may be introduced as the Japanese and African schistosomes, Japanese lung fluke, etc.

Importance of control of carriers such as fleas, flies, ticks, lice, mosquitoes and rodents.

Necessity of *diagnosis* of cases before either prevention or treatment can be adequate.

Conclusions

1. Urgent need of instruction in tropical medicine for medical students and physicians who will have military and postmilitary problems of the greatest importance for protection of public health.

2. Importance of public information on means of spread of these diseases, to promote intelligent support of medical profession in their prevention and control.

3. Life-saving value of vaccination and other medical preventives is abundantly proved in tropical medicine where only the ignorant or stupid deny them.

4. Highly important not to break down or allow to lapse our public health set-up and medical system of diagnosis, treatment and prevention of disease, because of war stress.

THE TREATMENT OF INFANTILE PARALYSIS

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When an individual points out unrecognized symptoms in a disease as old as the one, infantile paralysis, that is revealing! When these are at variance with the commonly accepted textbook picture of the disease, that is startling! But, when the same individual also abandons the ordinary treatment of the disease, and institutes measures contrary to years of orthodoxy, that is revolutionary!

The treatment of infantile paralysis was more or less static until the advent of Sister Kenny and her new concept of the disease with its radical departure from old methods of treatment. It was in June of 1941 that Cole and Knapp[1] published their preliminary report of Sister Kenny's work. It was also during that time that the speaker was privileged to spend some time at the University of Minnesota and observe Sister Kenny and her work.

The symptoms observed by Miss Kenny[2] in the acute stage of the disease, poliomyelitis, are three "muscle spasm," "mental alienation," and "incoordination." Any one of these three she feels can cause crippling. The most frequently overlooked is muscle spasm. One must admit that it is with difficulty that we begin thinking of infantile paralysis in terms of "spasm" rather than flaccid paralysis. This does not mean that the anterior horn cells are not damaged, or that the disease does not produce paralysis; rather, the Kenny concept is that "muscle spasm" is much more damaging if untreated than is the flaccid paralysis. The "spasm," if it continues in a muscle, produces death of cells and these in turn are replaced by connective tissue; there then follows contractures of muscles and joint deformities.

This idea of muscle "spasm" has received very little attention in medical writing; in fact, it did not appear at all in the report of the International Committee for the Study of Infantile Paralysis of 1932.[3] But that it does exist, has been amply demonstrated by tracings of muscle action currents. Schwartz and Bowman were able to demonstrate, not only spasm in the antagonist of the weakened muscle, but in the weakened muscle itself. They feel that the spasm is of a reflex nature with an altered reflex mechanism in the spinal cord.

Some have felt that perhaps the muscle spasm was due to vasomotor instability, the muscle developing painful spasm when the sympathetic control of the blood vessels to that particular muscle unit were temporarily inhibited because of the virus or inflammatory changes it produced in the autonomic nerves or ganglia themselves. The pain in this case, it is felt, is due to the anoxemia in the muscle tissue, and an accumulation of lactic acid and other catabolites.

Dr. Knapp[4] has given some very careful study to the part that the internuncial or intermediary cells connecting the dorsal and anterior horn cells play in the cause of this phenomenon of spasm. In animal experimentation, it was found that these cells were the first to suffer from the lack of circulating blood and furthermore the animals had all the clinical features of painful muscles in spasm. We know that the pathophysiology

of the spinal cord is characterized by edema, congestion, and impaired circulation with a resultant lack of oxygen suppply and death of cells. There are several reasons for dwelling somewhat at length on this question of spasm; for if this condition is found, then we have a rational basis for accepting the Kenny treatment for infantile paralysis.

True it is that in the pre-Kenny literature [5] we find mention of painful, tender muscles in the acute stage of the disease, but that is quite beside the point. The thing we waited for and expected to treat was the flaccid paralysis which followed. As Dr. Ray Lyman Wilbur [6] states in the one and only place we find the word spasm used: "It is unfortunate that our knowledge of this scourge has been confused by the paramount importance given to its striking complication, the paralysis. It will require a readjustment of the whole point of view for physicians to seek thoroughly in young febrile patients for hyperesthesias and muscular spasms and increased reflexes as they do for Koplik spots or strawberry tongues." Even so, no one has even intimated that spasm or tender muscles were more than a passing phenomenon; nor, was there any intimation that there was need for treatment.

The spasm as found in poliomyelitis has been described as a "group of symptoms including fibrillary twitchings (fasciculation), hyperirritability of the muscle to stretching and a more or less tonic state of contraction of the muscle fibers which frequently can not be overcome even by great force." [7]

This spasm may be so severe from the onset as to produce deformities similar to those we would expect to find in a chronic case; namely, scoliosis, elevation of the hip with consequent leg shortening, "foot drop," and externally rotated hips. Our experience has been that spasm is a constant feature of the disease, having been found in 100 per cent of our cases which now number well over 700.

The most frequent location for spasm is in the posterior neck muscles, the erector spinae muscles, and lastly the hamstrings and posterior leg muscles.

It would be quite impossible to take up each muscle and discuss it in a paper of this kind but we will point out the routine we follow in examining a patient with acute poliomyelitis. This examination or muscle analysis, as we term it, does not have for its purpose the evaluation of muscle strength, but rather serves as a criterion which is followed in determining a course of treatment.

Following the history and general physical examination, the patient is placed in a supine position. One can often detect muscle spasm by observation alone. A very common example of this is spasm in the upper portion of the trapezius resulting in an elevated shoulder on the affected side. If the shoulder is cupped or drawn forward and inward, then the pectoral muscles are in spasm. This often inhibits a full excursion of the chest cage and produces a pseudoparalysis of respiration. The erector spinae muscles of the back in spasm will result in a lordosis. If the spasm is more severe on one side than the other, then a scoliosis will be present. If the knees are held in flexion and the patient resists having them extended, we know that the patient has severe spasm of the hamstrings. Observation alone, then, becomes a guide as to what we will look for in greater detail as we examine the patient.

Commencing at the muscles of the neck, we have the patient turn the head from side to side to see if the sternocleidomastoid muscles are present. If they are (and most of the time they are not involved), we ask the patient to raise the head. If the patient can not perform this movement, we next examine for tightness or spasm in the trapezius muscle by placing the hand beneath the neck and passively raising the head. When this test is performed, the trapezius muscles will be found to be very taut and there will be a deep groove or sulcus in the midline between them. We often see patients with normal sternocleidomastoids and yet with the inability to raise the head. Obviously only one thing can be wrong—the posterior muscles are acting as a brake, preventing the anterior muscles from flexing the head. Many times the abdominals are perfectly normal, yet the patient can not sit up or if he does attempt to sit up, the back will be held rigid and the knees flexed, the body being propped up by the arms. This positive spine sign, or tripod sign, we have all seen and it has been put down as a sign of meningeal irritation. We, however, failed to explain how such a sign could remain months after the patient's original onset and when all spinal fluid findings and other meningeal signs were gone, at which time the patient would still reveal inability to sit up to even a 90-degree angle.

The hamstrings are tested with the patient in the Kernig position. We sometimes see the inner hamstring, sometimes the outer hamstring involved, but most frequently both hamstrings will be in spasm. This spasm may be so severe that the tendons of the hamstring muscles will stand out like the edge of a knife when an attempt is made to bring the leg to a right angle or less with the thigh.

The foot may be held in plantar flexion (foot drop) and by gently dorsiflexing the foot, spasm may be detected in the posterior leg muscles.

We have seen muscles of the thigh in such severe spasm, with ensuing swelling, that the affected leg was actually greater in circumference than the normal leg.

Visible spasm is present at a very early stage and soon subsides unless the muscle is put on a stretch.

This examination for spasm must be done with as little discomfort as possible to the patient. By gently moving the extremities and trunk, it is usually quite easy to find which muscles are tight and painful.

The treatment of this spasm is a real job. It is hard work and it takes equipment and lots of help, but it is well worth the effort until we find a more adequate means of releasing it.

By the use of hot packs, the acute pain and tenderness is often released within 48 hours. Often within one or two weeks pain is gone even on stretching the muscle.

We shall outline in some detail the set-up used for following the Kenny care and packs.

The Bed

The essentials for a polio bed are a firm, hard mattress, blankets above and below the patient, and a footboard. The patient is not placed against the footboard as long as spasm is present in the calf muscles. The purpose of the footboard is to keep the blankets off the feet and to stimulate the normal standing reflexes through contact of the sole of the foot with a flat surface.

Fomentations

The packs consist of three parts. The inner is made of 50–60 per cent wool cut in appropriate sizes to fit the part to be treated. The neck, back, forearm, and leg packs are rectangular in shape; while triangular pieces fit better the shoulder and hip joints. These pieces must be large enough to cover well the area involved. The shoulder pack reaches up over the shoulder to the neck piece and is long enough to come to the elbow but not over it. The thigh pack comes up over the crest of the ilium and down to the knee so that it covers the anterior and posterior thigh muscles. As far as possible, joints are left free so that as soon as the patient desires to move the limb, there is no restriction of motion. Oil of silk is placed directly over the wet pack and lastly a dry woolen covering is pinned over the oil of silk and finishes the pack.

These packs are changed every one-half to one hour in the acute stage, usually from 8 o'clock in the morning to 8 o'clock at night. If the spasm is extremely severe or the patient is critically ill with respiratory embarrassment, packs may be changed as often as every three to five minutes. The packs are continued until such a time that the patient has complete range of motion. The important thing is to have the foments as hot as it is possible for the patient to tolerate them. This will not cause burns if the packs are wrung as dry as possible before application. The real keynote to success in overcoming spasm seems to depend upon the heat and dryness of the packs applied.

Mental Alienation

Mental alienation is the term used by Sister Kenny to designate the condition found in the muscles or muscle groups opposing those that are in spasm. These muscles are the ones we would term paralyzed—in fact, it appears to me that one is wholly unable to determine whether a given muscle is not functioning because it has a physiological block or because actual anterior horn cell damage has occurred. The latter we can do nothing about, the former may be only a temporary affair and by proper treatment, it may cause no permanent disability.

The physicians watching the Kenny method at Minneapolis point out the following pertinent facts regarding mental alienation.[7] "This 'mental alienation' is a physiological block which must be distinguished from the organic interruption resulting from destruction of anterior horn cells by the disease." They mention four ways in which this physiological block may be produced.

1. "A muscle pulled beyond its normal resting length by its opponent which is in spasm.
2. A muscle may become "alienated" when pain is produced in its involved opponent by the attempt of such unaffected muscle to contract.
3. The spasm, or its later results, in an affected muscle may be so severe that the braking action or check on the normal opposing muscle may discourage the latter enough to produce "alienation."
4. The disease may produce changes in the nervous system which do not actually destroy the cells or fibers but do cause loss of conduction power and interference with normal neuro-muscular action."

The treatment is to release the spasm that is producing alienation, if the cause is any of the first three just mentioned. This is done by means of the hot fomentations. So far, we have no way of knowing if the increased circulation which results from the application of the fomentations has any effect on the anterior horn cells or any other nerve cells which might have to do with normal neuro-muscular action.

Mental alienation is probably more easily demonstrated when the patient is on his way to recovery and muscle reeducation is started. We have observed frequently that a patient will learn how to flex a limb correctly only to forget how it was done before the next session of muscle reeducation. When the movement is shown to the patient again and the muscles pointed out which perform the act, he can execute it correctly. This was also seen by Daly et al. in their evaluation of Sister Kenny's treatment.[8] One can readily realize that to treat the two conditions "spasm" and "mental alienation" with splints and plaster casts could only produce more pain and spasm, enhancing the opportunity for "mental alienation" to evolve.

A very pertinent observation that illustrates how long this alienation may remain is found in a comment by Warren White[9]: "We have all seen, for instance, the coming back of an anterior tibial, which has been apparently paralyzed for years, after a heel cord lengthening is done. It shows, I think, that those muscles have the ability to come back."

To place a limb in a splint and force the foot to a 90 degree angle when it already has been drawn into a "foot drop" by the posterior crural muscles, which are in spasm, is not rational. This explains the continued pain, contractures, atrophy, and functionless plantar flexors. When the cast is removed, the dorsiflexors have been so long without normal impulses, that they are unable to contract. The end result is a contracted foot, a deformed limb.

Incoordination

The last symptom in infantile paralysis which, if it is not properly treated, produces poor body mechanics is "incoordination." The Minneapolis group describe this condition as occurring from two principle causes.[7]

1. "That due to the spreading of motor impulses intended for a certain muscle to other muscles or groups of muscles due to such conditions as pain or attempted motion of the involved muscle or inability of the muscle to perform its proper function.
2. That occurring within the involved muscle itself so that ineffective contraction is produced instead of a coordinated rhythmic contraction producing maximum motion at the insertion of the muscle."

An example of "incoordination" pointed out by Sister Kenny, and one which we have observed frequently in our cases, is that between the gluteus maximus and biceps femoris muscles in extension of the thigh. Normally the biceps femoris contracts first to produce hip extension. When the thigh has been extended to 25 or 30 degrees then the gluteus maximus contracts to further extend the hip and to stabilize the extremity and pelvis. If the gluteus maximus muscle contracts first, the leg is externally rotated along with extension at an awkward angle. This, if it is allowed to persist, gives the patient a "duck waddle" in his gait.

Incoordination is often found in the abductors and adductors of the shoulder. For example, in abduction of the arm, the pectorals may attempt to perform the movement. This is an obvious impossibility for the pectorals are adductors of the shoulder.

To overcome incoordination, one must have a great deal of technical training for it is treated by proper muscle reeducation. This entails a very minute and accurate knowledge of anatomy and muscle function.

Tendon stimulation is performed on the mentally alienated muscles from the onset of the disease in order that they will not totally lose the power to contract. This is accomplished by moving the joint through a very small are, until the tendon of the muscle can be seen to stand out. This is done three to five times daily, care being exercised not to stretch or pull the muscles that still have active spasm.

As soon as the acute pain is relieved to the extent that a larger range of motion can be performed, the next step of muscle reeducation is begun. This is done by pointing out to the patient the muscle that is going to perform a given function. The point of the tendinous insertion is stroked; for it is at this point that the sensation of pull is going to be registered not only in the patient's mind but in the muscle as well. This is called "mental awareness" because we call upon the patient to consciously use his will power and concentrate on this point. For example, the tendon of the quadriceps, as it inserts by the ligamentum patellae into the tibia, is pointed out to the patient. The subject learns that from this point he is to take a step forward with the foot, then the leg is slowly extended while the patient concentrates on the motion being performed and on the area from which he will have a sensation of pull. The first movements are passive until it is felt that the patient has learned what he is expected to do. Then, two passive movements are followed by one active movement. It is quite important at this juncture to watch for incoordination. Once a motion has been learned incorrectly, it is very difficult to retrain the individual correctly. Muscle reeducation is performed daily and very soon three active movements are allowed. It is felt that the technique used in retraining these individuals to walk is one of the large factors responsible for the success of Sister Kenny's method. Before a patient is ever placed on his feet, he has learned the muscle mechanics involved in walking. It is not a matter of how strong the muscles are, but rather that the power present be directed correctly and used with the maximum of efficiency.

What Are the Advantages of the Kenny Method?

1. It treats from the onset a very painful and crippling process that occurs with all cases, namely spasm. The well-being, comfort, and lack of sedation required by the patient is frequently remarked about by our nurses, who more than any other individuals, have had to care for these patients in the first weeks of their illness.
2. The time elapsing between the onset of the disease and the time of commencing muscle reeducation is markedly reduced. We feel that the ability to start retraining a muscle weeks before we would have ever thought possible under the old treatment has further reduced the formation of crippling deformities and the amount of atrophy we would expect to find.

3. There is definitely less stiffness, adhesions, and contractures in the patients receiving packs and those who do not. Our best controls have been those patients who were placed in respirators, where it is very difficult to correctly pack the back and extremities, and note the difference between these patients and the patients with the same involvment in their extremities who received packs. It has taken weeks for the limbs of the respirator cases to loosen up.
4. Scoliosis has not occurred in any of the cases under treatment at Minneapolis. So far, those cases under our immediate care have not developed any serious curvatures. A few that have commenced we were able to stop by again packing and giving intensive muscle reeducation.

SUMMARY

The use of the Kenny Method is not a cure-all. It does not prevent the disease and paralysis still does occur. Rather, it shifts our viewpoint from the paralysis to the treatment and care of spasm, alienation and incoordination which we feel are as damaging and produce as much crippling or more than the flaccid muscles.

It is our humble opinion that those who have stayed long enough to see what is being accomplished by the group of workers in Minneapolis, or who themselves have given the Kenny Method a fair trial, can but agree that it is the method of choice from the onset of the disease.

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NEW SOUND FILMS AVAILABLE

The following 16 millimeter sound films recently have been added to the library of the State Department of Public Health and are available on loan:

Defeat Diphtheria—A British-made plea for immunization,

Fight Syphilis—Emphasis on war problems,

Help Wanted—A demonstration of first aid methods,

Keep 'em Out—Rat Eradication,

In the Beginning—The story of reproduction. Particularly suited to high school and college students,

On Your Feet—Healthful habits of walking and the proper selection of shoes,

Wartime Nutrition—Emphasis on the feeding of war workers,

Winged Scourge—A Walt Disney film on malaria.

INCREASED LOCAL HEALTH SERVICES

The enormous growth of population in counties surrounding San Francisco Bay has made it necessary to increase aid to local health departments in such counties. In Vallejo the city will increase its contribution to the local health department by at least 100 per cent and the Solano county board of supervisors will increase its contribution to the county health department by at least 400 per cent. The State Department of Public Health will increase its contribution to both the Vallejo and Solano County Health Departments by approximately 100 per cent. In Richmond the health budget has been doubled and the State department is augmenting its activities by providing financial assistance that will represent approximately 40 per cent of the total. All of these added activities are made necessary because of the great numbers of individuals who have swarmed into these communities which were caught unequipped to provide even emergency local health services to the increased population.

Our fighting men standing shoulder to shoulder with our gallant Allies, the British and French, have driven the enemy out of North Africa. In this victory, the munitions made by American industry, labor and management played a very important role. There is glory for us all in this achievement.—General Eisenhower.

The simple truth is that unless we organize for peace we shall not have peace. Unless the idea of international collaboration, which few dispute, is incorporated in some political institution, it will remain a polite platitude.—Dr. Harold W. Dodds.

printed in CALIFORNIA STATE PRINTING OFFICE
SACRAMENTO, 1943 GEORGE H. MOORE, STATE PRINTER 20326 10-43 6500